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CLAIMS

1. A method for broadcasting a programme, the method comprising:

broadcasting (308) from a broadcasting system a programme over a broadcasting path of the broadcasting system;

transferring (304) from a server broadcast programme-associated data to a cellular radio network;

transmitting (306) from a base station of the cellular radio network the broadcast programme-associated data at a specific frequency defined for the cellular radio network in such a manner that the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme;

receiving (310) with a subscriber terminal of the cellular radio network the programme and the broadcast programme-associated data in such a manner that a programme receiver of the subscriber terminal receives from the broadcasting path of the broadcasting system the programme and a cellular radio network transceiver of the subscriber terminal receives the broadcast programme-associated data at a specific frequency; and

establishing (312) from the subscriber terminal a return channel through the base station to the server;

characterized in that

the return channel is used to order a given programme for broadcasting at a specific frequency defined for the cellular radio network and/or the return channel is used to transfer to the server data related to a game to be played in the subscriber terminal.

2. A method as claimed in claim 1, characterized by the method also comprising: transferring (302) the broadcast programme-associated data from the broadcasting system to the server.

3. A method as claimed in claim 1, characterized in that the broadcast programme-associated data comprises at least one of the following: text, sound, stationary picture, moving picture.

4. A method as claimed in claim 1, characterized in that the broadcast programme-associated data comprises information defining the broadcasting time of the programme.

5. A method as claimed in claim 4, characterized by the method also comprising: starting the presentation of the programme in the

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subscriber terminal on the basis of the information defining the broadcasting time.

6. A method as claimed in claim 4, **c h a r a c t e r i z e d** by the method also comprising: storing the programme in the subscriber terminal on the basis of the information defining the broadcasting time.

7. A method as claimed in claim 1, **c h a r a c t e r i z e d** by the method also comprising: maintaining in the server a list of subscriber terminals that receive the broadcast programme-associated data.

8. A method as claimed in claim 1, **c h a r a c t e r i z e d** by using the return channel also to transfer programme-associated feedback information from the subscriber terminal to the broadcasting system.

9. A method as claimed in claim 1, **c h a r a c t e r i z e d** by using the return channel also to make a purchase associated with an advertisement presented in the programme and/or broadcast programme-associated data.

10. A method as claimed in claim 1, **c h a r a c t e r i z e d** in that the programme comprises a radio programme, the broadcast programme-associated data comprises data associated with a radio programme, the broadcasting system comprises a radio broadcasting system, the programme receiver comprises a radio receiver, and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system.

11. A method as claimed in claim 10, **c h a r a c t e r i z e d** by the method also comprising: multiplexing the radio programme and broadcast programme-associated data for broadcasting in a digital radio at a specific data channel or as subsidiary transmissions to an FM subcarrier.

12. A system for broadcasting a programme, the system comprising:

a broadcasting system (100) for broadcasting a programme over a broadcasting path (104) of the broadcasting system (100);

a subscriber terminal (130) of a cellular radio network that comprises a programme receiver (134) for receiving a programme from the broadcasting path (104) of the broadcasting system (100);

a server (108, 112) for processing broadcast programme-associated data, which server (108, 112) is configured to process synchronization information that defines the synchronization of the transmission of the broadcast programme-associated data with the broadcasting of the programme; and

a cellular radio network (220) configured to receive from the server (108, 112) the broadcast programme-associated data and synchronization in-

formation and which cellular radio network (220) comprises a base station (122) configured to transmit at a specific frequency (126) defined for the cellular radio network (220) the broadcast programme-associated data in such a manner that the transmission of the broadcast programme-associated data is synchronized with the broadcasting of the programme according to the synchronization information; and

the subscriber terminal (130) of the cellular radio network also comprises a cellular radio network transceiver (138) for receiving the broadcast programme-associated data at a specific frequency (126) defined for the cellular radio network (220); and

the cellular radio network transceiver (138) of the subscriber terminal (130) is configured to establish a return channel (128) through the base station (122) to the server (108, 112), and the base station (122) is configured to receive the return channel (128);

c h a r a c t e r i z e d in that

the subscriber terminal (130) is configured to order by using the return channel (128) a programme for broadcasting at a specific frequency defined for the cellular radio network (220), and the server (108, 112) is configured to receive the programme order;

and/or

the subscriber terminal (130) is configured to transfer to the server (108, 112) by using the return channel (128) data related to a game to be played in the subscriber terminal (130), and the server (108, 112) is configured to receive the data related to the game from the subscriber terminal (130).

13. A system as claimed in claim 12, c h a r a c t e r i z e d in that the broadcasting system (100) is configured to transfer the broadcast programme-associated data to the server (108, 112), and the server (108, 112) is configured to receive the broadcast programme-associated data from the broadcasting system (100).

14. A system as claimed in claim 12, c h a r a c t e r i z e d in that the broadcast programme-associated data comprises at least one of the following: text, sound, stationary picture, moving picture.

15. A system as claimed in claim 12, c h a r a c t e r i z e d in that the broadcast programme-associated data comprises information defining the broadcasting time of the programme.

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16. A system as claimed in claim 15, **c h a r a c t e r i z e d** in that a user interface (142) of the subscriber terminal (130) is configured to start presenting the programme on the basis of the information defining the broadcasting time.

17. A system as claimed in claim 15, **c h a r a c t e r i z e d** in that the subscriber terminal (130) comprises a memory (144), and the subscriber terminal (130) is configured to store the programme into the memory (144) on the basis of the information defining the broadcasting time.

18. A system as claimed in claim 12, **c h a r a c t e r i z e d** in that the server (108, 112) is configured to maintain a list of subscriber terminals that receive the broadcast programme-associated data.

19. A system as claimed in claim 12, **c h a r a c t e r i z e d** in that the subscriber terminal (130) is configured to use a return channel (128) to transfer programme-associated feedback information to the broadcasting system (100), and the broadcasting system (100) is configured to receive the programme-associated feedback information from the subscriber terminal (130).

20. A system as claimed in claim 12, **c h a r a c t e r i z e d** in that the subscriber terminal (130) is configured to use a return channel (128) to make a purchase associated with an advertisement presented in the programme and/or broadcast programme-associated data, and the server (108, 112) is configured to receive the purchase information from the subscriber terminal (130).

21. A system as claimed in claim 12, **c h a r a c t e r i z e d** in that the programme comprises a radio programme, the broadcast programme-associated data comprises data associated with a radio programme, the broadcasting system comprises a radio broadcasting system, the programme receiver comprises a radio receiver, and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system.

22. A system as claimed in claim 12, **c h a r a c t e r i z e d** in that the server (108, 112) is configured to multiplex the radio programme and broadcast programme-associated data for broadcasting in a digital radio at a specific data channel or as subsidiary transmissions to an FM subcarrier.

23. A system for broadcasting a programme, the system comprising:

a broadcasting system (100) for broadcasting a programme over a broadcasting path (104) of the broadcasting system (100);

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a server (108, 112) for processing broadcast programme-associated data, which server (108, 112) is configured to process synchronization information that defines the synchronization of the transmission of the broadcast programme-associated data with the broadcasting of the programme; and

a cellular radio network (220) configured to receive from the server (108, 112) the broadcast programme-associated data and synchronization information, which cellular radio network (220) comprises a base station (122) configured to transmit to the subscriber terminal (130) of the cellular radio network at a specific frequency (126) defined for the cellular radio network (220) the broadcast programme-associated data in such a manner that the transmission of the broadcast programme-associated data is synchronized with the broadcast of the programme according to the synchronization information; and

the base station (122) is configured to receive a return channel (128) from the cellular radio network transceiver of the subscriber terminal (130);

c h a r a c t e r i z e d in that

the server (108, 112) is configured to receive from the subscriber terminal (130) a programme order made using the return channel (128), in which order the subscriber terminal (130) orders a certain programme to be broadcast at a specific frequency defined for the cellular radio network (220);

and/or

the server (108, 112) is configured to receive by using the return channel (128) data related to a game to be played in the subscriber terminal (130).

24. A system as claimed in claim 23, **c h a r a c t e r i z e d** in that the programme comprises a radio programme, the broadcast programme-associated data comprises data associated with a radio programme, the broadcasting system comprises a radio broadcasting system, and the broadcasting system broadcasting path comprises a specific frequency defined for the radio broadcasting system.

25. A subscriber terminal (130) of a cellular radio network for receiving a programme, the subscriber terminal comprising:

a programme receiver (134) for receiving a programme from the broadcast path (104) of a broadcasting system (100);

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a cellular radio network transceiver (138) for receiving broadcast programme-associated data at a specific frequency (126) defined for the cellular radio network (220); and

the cellular radio network transceiver (138) of the subscriber terminal (130) is configured to establish a return channel (128) through a cellular radio network base station (122) to a server (108, 122);

c h a r a c t e r i z e d in that

the subscriber terminal (130) is configured to order by using the return channel (128) a given programme for broadcasting at a specific frequency defined for the cellular radio network (220);

and/or

the subscriber terminal (130) is configured to transfer to the server (108, 112) by using the return channel (128) data related to a game to be played in the subscriber terminal (130).

26. A subscriber terminal as claimed in claim 25, **c h a r a c t e r i z e d** in that the subscriber terminal (130) also comprises a specific user application, with which the user easily manages the reception of the programme and the broadcast programme-associated data.

27. A subscriber terminal as claimed in claim 25, **c h a r a c t e r i z e d** in that the user application is installed into the subscriber terminal (130) at the factory or downloaded to the subscriber terminal (130) later by the vendor of the subscriber terminal (130), the cellular radio network operator or the user of the subscriber terminal.

28. A subscriber terminal as claimed in claim 25, **c h a r a c t e r i z e d** in that the user application is personalized with the user profile of the user in such a manner that the type of the broadcast programme-associated data that the subscriber terminal (130) receives is specified in the user profile.

29. A subscriber terminal as claimed in claim 25, **c h a r a c t e r i z e d** in that the subscriber terminal (130) is configured to download ready-made user profiles from the mobile server (112).

30. A subscriber terminal as claimed in claim 25, **c h a r a c t e r i z e d** in that for each user profile, a unique identifier is defined, by means of which it is possible to identify the user application in each subscriber terminal (130).

31. A subscriber terminal as claimed in claim 25, **c h a r a c t e r - i z e d** in that when starting, the user application is configured to offer the user the option of selecting a station.

32. A subscriber terminal as claimed in claim 31, **c h a r a c t e r - i z e d** in that the user application is configured to find out the cell identifier implemented by the base station (122), to transmit the identifier to the mobile server (112), and to receive from the mobile server (112) a list of stations received in the cell in question.

33. A subscriber terminal as claimed in claim 31, **c h a r a c t e r - i z e d** in that the user application is configured to receive from the mobile server (112) a list of audible stations in the location according to the location information of the subscriber terminal (130).

34. A subscriber terminal as claimed in claim 31, **c h a r a c t e r - i z e d** in that the receiver (132) of the subscriber terminal (130) is configured to scan through the frequency spectrum and to transmit the scanning results or the frequencies of the receivable stations to the mobile server (112), and to receive on the basis of the transmitted information a list of receivable stations defined by the mobile station (112).

35. A subscriber terminal as claimed in claim 31, **c h a r a c t e r - i z e d** in that the user interface (142) of the subscriber terminal (130) is configured to receive the name of the location entered by the user, and the user application is configured to transmit the name in question to the mobile server (112), and to receive the station list of the location transmitted by the mobile server (112).

36. A subscriber terminal as claimed in claim 25, **c h a r a c t e r - i z e d** in that the programme comprises a radio programme, the broadcast programme-associated data comprises data associated with a radio programme, and the broadcasting system broadcasting path comprises a radio broadcasting system.